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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,358	12/12/2003	Roland Aldridge	9288a	1831

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EXAMINER

CYGAN, MICHAEL T

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/735,358	Applicant(s) ALDRIDGE ET AL.	
	Examiner Michael Cygan	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. In Figure 1, the label of the set screw next to the "SPAN" button should be changed from 14d' to 14e', the front of the case should be changed from 12e to 12c, and the label and line connecting 12c to the flowmeter should be eliminated. In Figure 10, label 42 should be changed to 42a and reference made to a label "42 (Figure 9)" at page 14, line 8 should be eliminated. Label 50b should be added in Figure 15 and be connected to the rightmost side of the part 50. In Figure 14, the line attached to numeral 68 be attached to the heavily shaded o-ring, and the line attached to reference 26c should be attached to the bottom (left hand side) wall of the block 18.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 7, 8, 10, 16, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Schaedlich (US 5,597,535). Schaedlich discloses the claimed invention, an instrument comprising a detection cell [12], block having sample

gas inlet/orifice [70], calibration gas inlet/orifice [69], plurality of passageways [14,15,60] of which one leads from sample orifice through detection cell to gas outlet [58], and a valve [68, 46, 34, 50, or 54] mounted to the block having different positions that direct the flow of gas along at least one of the passageways. See entire document, especially Figure 1 and columns 4-7.

With respect to claim 2, orifices inherently constrain an inlet pressure range to a flow range.

With respect to claims 7, 8, and 17, certain valves [68, 46, 50, 54] have positions allowing or blocking sample gas from reaching the detection cell. A first flow path extends from inlet [70] through a path [68,72,74,46,14,48,50,54] through detector [12] and outlet [58]. A second flow path may divert a portion of the gas through a different path [68,72,74,46,15,49,50,54] through detector [12] and outlet [58]. Other secondary flow paths divert portions of the sample gas to other outlets [56,66]. The orifices at the connecting joints between parts in the flow paths inherently provide prevention of excessive pressure build up, since they act to restrict flow.

With respect to claim 10, valve 68 provides alternate flow paths for calibration and sample gas.

3. Claims 1, 2, 7-9, 16, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ririe (US 4,101,282). Ririe discloses the claimed invention, an instrument comprising a detection cell [150], block having sample gas inlet/orifice [12], calibration gas inlet/orifice [187,189], plurality of

passageways (Figure) of which one leads from sample orifice through detection cell to gas outlet [80], and a valve [20,90,182,183,100,57,165,111,or 152] mounted to the block having different positions that direct the flow of gas along at least one of the passageways. See entire document, especially Figure and columns 2-4.

With respect to claim 2, orifices inherently constrain an inlet pressure range to a flow range.

With respect to claims 7, 8, 9, and 17, certain valves [20,90,100,57,111] have positions allowing or blocking sample gas from reaching the detection cell. A first flow path extends from inlet [70] through a path (Figure) through detector and outlet. A second flow path may divert a portion of the sample gas through a different path (with valve 90 closed) through outlet [80], allowing calibration gas to pass through the detector and outlet. The orifices at the connecting joints between parts in the flow paths inherently provide prevention of excessive pressure build up (especially flow restrictor 55), since they act to restrict flow.

4. Claims 1, 2, 10, and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Czekajewski (US 4,947,339). Czekajewski discloses the claimed invention, an instrument comprising a detection cell [15,16], block having sample gas inlet/orifice [21], calibration gas inlet/orifice [4,5], plurality of passageways (interior of manifold valve 11) of which one leads from sample orifice through detection cell to gas outlet [6], and a valve [11]

mounted to the block having different positions that direct the flow of gas along at least one of the passageways. A detachable scrubber [14] is downstream of the sample inlet and upstream of the detection cell. See entire document, especially Figure 1 and columns 4-6.

With respect to claim 2, orifices inherently constrain an inlet pressure range to a flow range. The orifices at the connecting joints between parts in the flow paths inherently provide prevention of excessive pressure build up, since they act to restrict flow. Pressure regulators 13 and 18 also restrict flow.

With respect to claim 10, valve 11 provides alternate flow paths for calibration and sample gas.

5. Claims 1, 2, 8, 12, and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kishkovich (US 6,207,460 B1). Kishkovich discloses the claimed invention, an instrument comprising a detection cell [126], block having sample gas inlet/orifice [112], calibration gas inlet/orifice [112], plurality of passageways (interior of manifold valve 11) of which one leads from sample orifice through detection cell to gas outlet [128], and a valve [114,123] mounted to the block having different positions that direct the flow of gas along at least one of the passageways. A detachable scrubber [120] is downstream of the sample inlet and upstream of the detection cell and in a bypass loop. See entire document, especially Figures 8-9 and column 9.

With respect to claim 2, orifices inherently constrain an inlet pressure range to a flow range. The orifices at the connecting joints between parts in the flow paths inherently provide prevention of excessive pressure build up, since they act to restrict flow. Pressure regulators 118 also restricts flow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaedlich (US 5,597,535). Schaedlich teaches the claimed invention except for the claimed ranges. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the claimed

ranges, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

7. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ririe (US 4,101,282). Ririe teaches the claimed invention except for the claimed ranges. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the claimed ranges, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.
8. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Czekajewski (US 4,947,339). Czekajewski teaches the claimed invention except for the claimed ranges. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the claimed ranges, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.
9. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishkovich (US 6,207,460 B1). Kishkovich teaches the claimed invention

except for the claimed ranges. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the claimed ranges, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-61 of U.S. Patent No. 6,675,629. Although the conflicting claims are not identical, they are not patentably distinct from each other because each element claimed in the instant invention is set forth in the claims of the '629 patent.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Similar instruments are disclosed by Kuchar (US 4,597,285), Tomlin (US 4,738,147), Mettes (US 5,054,309), Liston (US 5,355,781), Burrows (US 5,739,038), and Sittler (US 6,029,499).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cygan whose telephone number is (571) 272-2175. The examiner can normally be reached on 8:30-6 M-Th, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**MICHAEL CYGAN, PH.D.
PRIMARY EXAMINER**